UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

156414

DATE: 15 AUG 1984

SUBJECT: Immediate Removal Authorization for the Duane Marine Corporation Site, Perth Amboy, New Jersey - ACTION MEMORANDUM

FROM: Bruce Sprague, OSC (for Fred Rubel)
Emergency Response Branch

TO: Dick Dewling
Acting Regional Administrator

THRU: William J. Librizzi, Director
Office of Emergency and Remedial Response

I. PURPOSE:

A. Site Setting/Description

The New Jersey Department of Environmental Protection (NJDEP) has requested immediate EPA action to secure and stabilize the Duane Marine Corporation site in order to prevent or mitigate immediate and significant risk of harm to human life and health. The NJDEP intends to commence removal activities at the site within the next six months. EPA's removal action includes repairing the existing fence, boarding up any open first or second floor windows of the building, cover open roll-off containers which have chemical wastes in them, and repair or patch any leaking tanks. Additional activity will include attempting to determine the source of oil that has entered the Arthur Kill in which low levels of PCB's (14 ppm) and heavy metals have been detected. Total removal costs are estimated to be not more than $50,000, covering a period of 5-10 days.

II. BACKGROUND:

The Duane Marine Corporation site is located at 26 Washington Street in Perth Amboy, Middlesex County, New Jersey (Figure 1). The site directly borders the Arthur Kill, a navigable waterway of the United States. Approximately 3,500 metal 55-gallon drums, two dozen metal tanks, six tankers, three box trailers, and six roll-off dumpsters have been abandoned on the five-acre site (Figure 2).

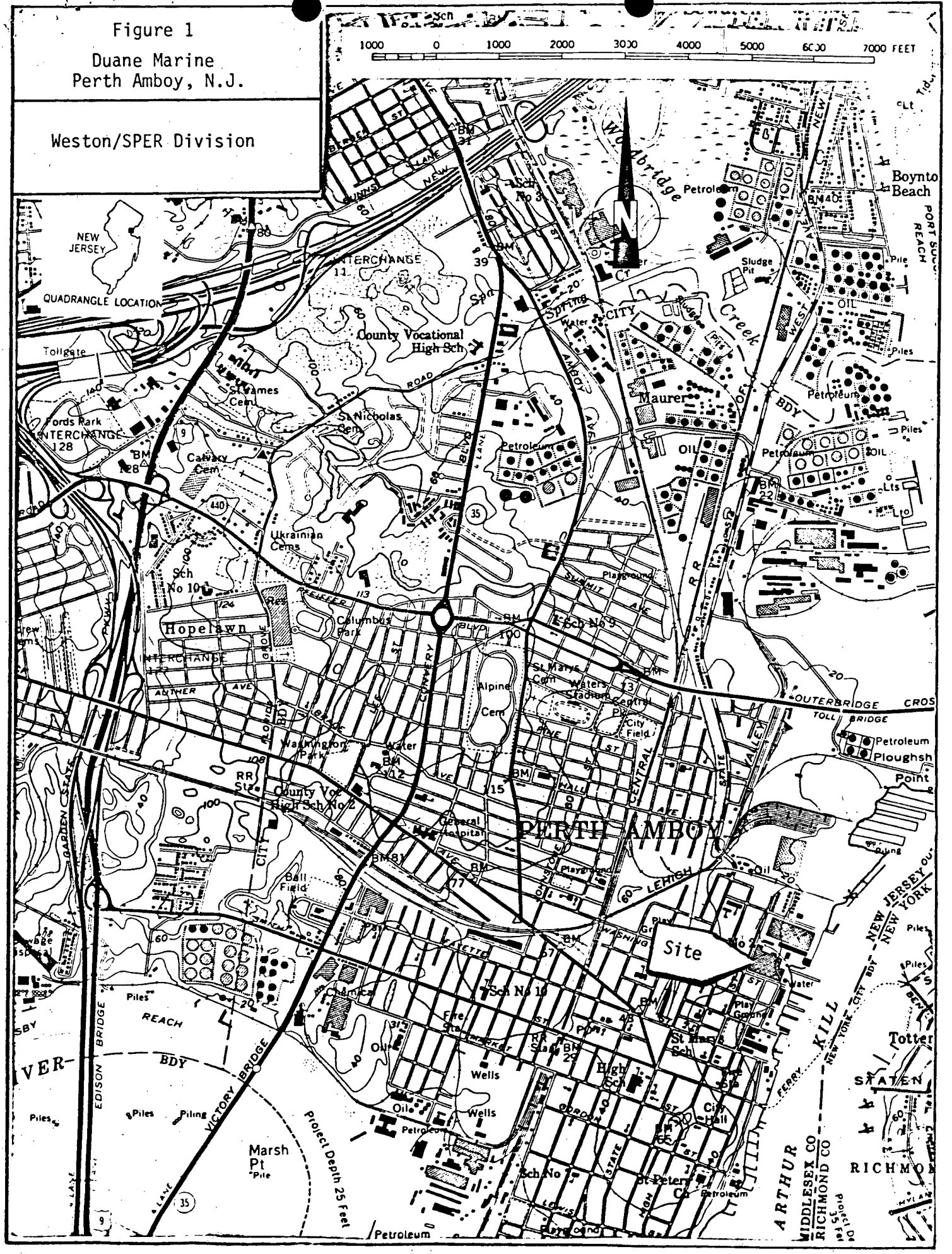
In addition, two trucks, construction debris, and piles of spent boom and sorbent material are scattered throughout the site.

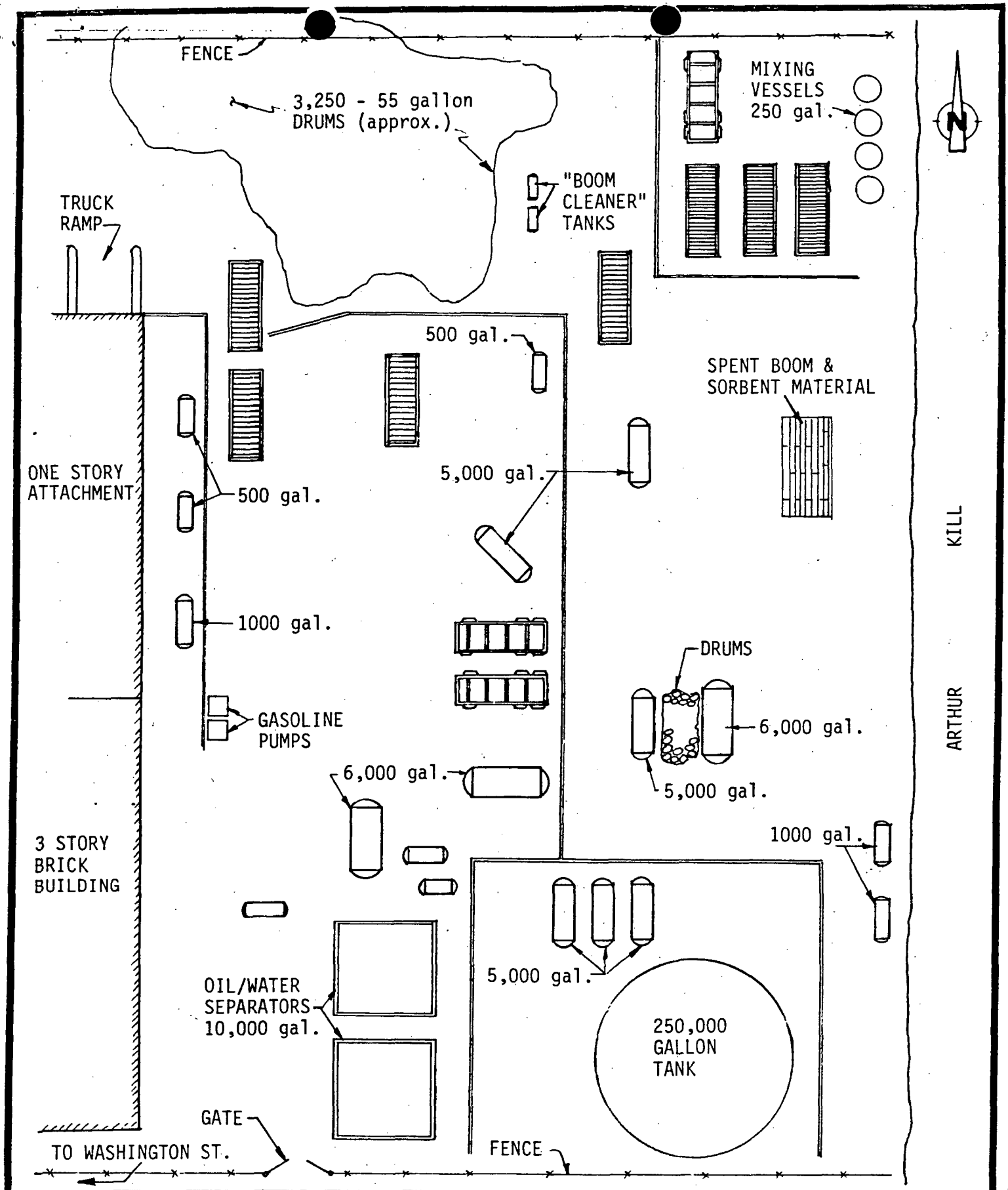
Duane Marine Corporation was an oil spill cleanup contractor that opened this site for storage, treatment, blending, and reprocessing of waste oils. The New Jersey Department of Environmental Protection issued a temporary operating authorization of this facility on May 9, 1978 for acceptance of the following waste types: tank bottoms, waste oils, oil sludge, solvents, acids, alkali solutions, and flammable liquids.

Figure 1

Duane Marine
Perth Amboy, N.J.

Weston/SPER Division





WESTON — SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In association with
ICF, Inc., Jacobs Engineering, Inc., & Tetra Tech, Inc.

FIGURE 2
DUANE MARINE SITE PLAN

LEGEND: 20 CY DUMPSTER; BOX TRAILER; TANK

The facility was not authorized to accept PCB waste which has been found at the site. On July 7, 1980 a major fire at General Cable in the Perth Amboy Industrial Center (on Washington Street) spread to the Duane Marine facility resulting in the destruction of several buildings, boats, and vehicles. Approximately 2,000 55-gallon drums of waste chemicals were consumed during the fire. Subsequent to the fire, Duane Marine Corporation expressed no interest in continuing operations and abandoned the site.

The majority of the approximately 3,500 fifty-five gallon drums are located in the north to northwest area of the site (Figure 2). These drums are haphazardly stacked in several piles on the asphalt pavement, up to three tiers high and ten deep (Appendix A). Some of the drums in this area are empty, having been consumed by the July 1980 fire. The others in this area appear to contain mostly solid materials and have rusted/corroded such that labeling information is legible on only a few. Some of these drums are bulging and a few do not have lids.

A much smaller drum storage area is located in the southeastern portion of the site. Approximately 100 fifty-five gallon drums are stacked between a 6,000 gallon tank and a 5,000 gallon tank (Figure 2). They appear to be intact, with a few of them located directly underneath the 5,000 gallon tank. There are no containment dikes around the drum storage area.

A 250,000 gallon oil storage tank is located in the southeastern portion of the site. This steel tank is approximately thirty feet high and sits on a concrete foundation. The soil surrounding this tank is covered with an oily sheen from previous leakage. The tank wall is gouged on the northernmost side, accounting for at least part of the soil contamination. This gouging may have started from bullet holes. In 1982, NJDEP measured the volume of the contents of the tank to be approximately 6 feet from the top of the tank. On July 13, 1984 NJDEP measured the contents of the tank to be approximately 27 feet from the top of the tank. The disparity of these measurements is uncertain at this time.

Adjacent to the oil storage tank are an additional three 5,000 gallon waste oil treatment tanks connected in series. All four tanks are enclosed by a dike that is constructed of steel reinforced concrete walls. The walls are 6 inches thick, 12 feet high and 80 feet long. Several substantial cracks in the back wall are apparent, directly bordering the Arthur Kill.

The six roll-off dumpsters (i.e., 20 cubic yards each) contain solid and/or sludge like materials. Three of these dumpsters are covered with plywood. The other three are completely open.

The two oil/water separator tanks (i.e., 10,000 gallons each) are located adjacent to the unlocked gate entrance. They are covered with tarps, although there is evidence of oil leakage/spillage on the asphalt pavement.

Six tankers are also present on site. Three are of 5,000 gallon capacity and the others are of 6,000 gallon capacity. At least two of these tankers have leaked in the past with no means of containment present.

There are three trailers on site, one of which has been badly damaged by a fire that was suspected to be arson.

There are fifteen small tanks located throughout the site, the largest being of 1,000 gallon capacity. Several of these tanks are rusted/corroded and a few contain what appear to be bullet holes.

The site is located in a heavily populated and densely industrialized area. Several sections of the fence surrounding the property have been cut and knocked down. In addition, the gate entrance on Washington Street is not secure as the chain and lock have been removed. Repeated vandalism has resulted in free access increasing the threat to human health via direct contact with the hazardous materials. Children have been observed on-site during recent EPA inspections. Remnants of fireworks have also been found on the site.

The site is within 0.2 mile of a residence. Approximately 5,000 people live within 1 mile of the site, including children. Perth Amboy has a population of 39,000. Directly across from the site on Washington Street is a large propane tank enclosed by a chain-link fence. The Perth Amboy Dry Dock Company is adjacent to the site on Front Street.

B. Quantity and Types of Substances Present

There is an unknown quantity of hazardous materials on site. A sampling program of various tanks conducted by the NJDEP in June and August 1981 revealed the presence of the following hazardous substances.

Substance	Statutory Source Por Designation Under CERCLA
Bromoform	CWA, Section 307(a)
Dichlorobrcmomethane	CWA, Section 307(a)
Ethylbenzene	CWA, Section 311(b)(4)
Tetrachloroethylene	CWA, Section 307(a)
Trichloroethylene	CWA, Section 311(b)(4)
Total-Xylene	CWA, Section 311(b)(4)
PCB/1254	GWA, Section 311(b)(4)
PCB/1221	CWA, Section 311(b)(4)
PCB/1216	CWA, Section 311(b)(4)
Toluene	CWA, Section 311(b)(4)
Chlorobenzene	CWA, Section 311(b)(4)
1,2-Dichloroethane	CWA, Section 307(a)
1,2-Dichloropropane	CWA, Section 307(a)
Trichloroethane	CWA, Sectien 307(a)

The NJDEP also obtained samples from the six roll-off dumpsters in September 1981. The following hazardous substances were identified:

Substance	Statutory Source For Designation Under CERCLA
Benzene	CWA, Section 311(b)(4)
Toluene	CWA, Section 311(b)(4)
Ethylbenzene	CWA, Section 311(b)(4)
Total-Xylene	CWA, Section 311(b)(4)
Dimethyl phthalate	CWA, Section 307(a)
Butylbenzylphthalate	CWA, Sectien 307(a)
Methylene chloride	CWA, Section 307(a)
1,1,1-trichloroethane	CWA, Section 307(a)
Tetrachloroethylene	CWA, Section 307(a)
Phenol	CWA, Section 311(b)(4)
Arsenic	RCRA, Section 3001
Chromium	RCRA, Section 3001
Lead	RCRA, Section 3001
Silver	RCRA, Section 3001
Selenium	RCRA, Section 3001

Very few of the drums have manufacturer or product labels. Product labels noted include waste oils, epoxy/adhesives, sodium sulfhydrate, and caustic sodium hydroxide. Manufacturers labels include Dow Chemical, Chevron, Anchor Chemical Company, and G. Whitfield Richards.

C. This site is not on the National Priority List.

III. THREAT:

A. Threat of Exposure to Public or the Environment

The threat of exposure to the public or the environment is multifold. The site is unsecured permitting individuals to come in direct contact with hazardous substances. Children have been observed on-site during EPA inspections and previous attempts by NJDEP to repair the fence and secure the site have been unsuccessful. Recent vandalism is evident from the presence of beer bottles/cartons, fireworks, and possibly bullet holes in a few of the tanks.

The potential for fire and subsequent release of toxic fumes is also of concern. A fire involving an abandoned office trailer on-site in September 1983 was considered to be of suspicious nature. Since the site is unsecured, the potential for arson still exists. As secondary containment measures are virtually non-existent, any run-off from a spill/fire will flow into the Arthur Kill, a navigable waterway of the United States. Although this waterway is not of high quality, it is utilized for fishing and recreational purposes.

B. Evidence of Extent of Release

The present evidence of release includes the obvious oil sheen and contaminated soil surrounding the 250,000 gallon oil storage tank. The tank wall is gouged (possibly from bullet holes) on the northernmost side, accounting for the leakage. In addition, tanker leakage has been noted from discoloration/staining of soil on-site. The NJDEP reported that rainwater has caused displacement of material in the drum storage area with leachate flowing from this area to the Arthur Kill.

Additionally, on July 12, 1984, an oil spill was reported to be entering the Arthur Kill from several seeps along the edge of the site. This oil was determined to contain upto 14 ppm PCB's, as well as levels of various heavy metals. Verification that the Duane Marine facility was the source of this release has not yet been made.

C. Previous Actions to Abate Threat

The NJDEP collected samples for volatile organics analysis from eleven tanks/tankers on June 12, 1981 and also obtained samples for PCB analysis from thirteen tanks/tankers on August 11, 1981. The six roll-off dumpsters were sampled by NJDEP on September 2, 1981 for priority pollutant analysis. Two additional tanks were sampled for PCB analysis by NJDEP on November 19, 1981. Hazardous substances were found, as previously indicated on page 4.

In August 1981, New Jersey Spill Fund monies were utilized to secure the site. Repeated vandalism since then and continued deterioration of waste containers has resulted in the current threat to human health from direct contact, and potential release of toxic fumes from a fire. NJDEP indicates it will be unable to adequately address the site for several months due to contract requirements and thus requested EPA to act.

D. The NJDEP intends to initiate action at the site within the next six months. They have requested that EPA conduct an immediate removal action to secure and stabilize this site in the interim. The NJDEP has indicated that once EPA's security measures are in place NJDEP will be responsible for their maintenance.

IV. ENFORCEMENT:

(See attachment).

V. PROPOSED PROJECT AND COSTS:

A. Objective of the Removal Action are as follows:

Phase 1

1) Repair approximately 400 feet of damaged fencing and gates.

2) Board up first and second floor windows that are not within the fenced area.

3) Cover the open roll-off containers.

4) Determine the source of the oil seeping into the Arthur Kill.

5) Contain oil seep

1) Install 3-5 monitoring wells (if feasible, and if warranted after trenching is attempted)

2) Perform a metal detection survey

B. Response Options:

(a) Repair fence

(1)	Repair 400 feet of fence (at $20/foot with labor)		$ 8,000
(2)	Vehicle		360
(3)	Subtotal		$ 8,360
(4)	20% Contingency		472
(5)	TAT Costs		1,672
(6)	Intramural costs (HQ and Region)		1,000
		TOTAL	$11,832

(b) Board up open windows

(1)	Materials (plywood, bolts, etc.,)		300
(2)	Labor		$ 1,500
(3)	Vehicle		270
(4)	Subtotal		$ 2,070
(5)	20% Contingency		414
(6)	TAT Costs		500
(7)	Intramural costs (HQ and Region)		1,000
		TOTAL	$ 3,984

(c) Cover roll-off containers and patch leaky tanks

(1)	Materials (poly sheeting, lumber, etc.,)		300
(2)	Labor		500
(3)	Subtotal		$ 800
(4)	20% Contingency		160
(5)	TAT Costs		200
(6)	Intramural costs (HQ and Region)		500
		TOTAL	$ 1,660

(d) Determine source of seep

(1)	Backhoe (2 days)		$ 480
(2)	Labor		960
(3)	Subtotal		$ 1,440
(4)	20% Contingency		288
(5)	TAT costs		200
(6)	Intramural costs (HQ and Region)		500
		TOTAL	$ 2,428

(e) Contain oil seep

(1)	500 feet slick bar boom (1 day)		$ 590
(2)	Labor		2,800
(3)	Boat with motor		105
(4)	Sorbent		70
(5)	Vehicles (2)		180
(6)	Subtotal		$ 3,745
(7)	20% Contingency		749
(8)	TAT costs		300
(9)	Intramural costs (HQ and Region)		800
		TOTAL	$ 5,594

(f) Drill four monitoring weils (if digging with backhoe fails to identify source of oil seep).

(1)	Drilling costs		$ 5,000
(2)	Permits		200
(3)	Vehicle		350
(4)	Subtotal		5,550
(5)	20% Contingency		1,110
(6)	TAT costs		800
(7)	Intramural costs (HQ and Region)		1,500
		TOTAL	8,960

(g) Magnetometer survey

This option will be done to locate any underground tanks not already identified. The cost of such a survey is estimated at $15,000.

The costs are therefore estimated as follows:

Mitigation contracting:	$41,400
Other extramural costs (i.e., TAT):	2,800
Intramural costs:	5,300

C. Project Schedule

Project initiation date is tentatively scheduled for Monday July 23, 1984. It is estimated that the entire removal action will take 5 - 10 days.

VI. AUTHOPIZATION:

Conditions at the Duane Marine Corporation site meet the NCP Section 300.65 criteria for an immediate removal (i.e., it presents an immediate and significant risk of harm to human life and health because of the potential for direct human exposure to acutely toxic substances and the potential for fire). On July 12, 1984, verbal authorization for an immediate removal with an initial ceiling of $50,000 was approved. Please confirm verbal approval of this action by signing belcw and returning this memorandum to me.

Approve: _____ Date: 8/20/84

Attachments

cc: J. Marshall, 20EP
W. Librizzi, 20ERR
F. Rubel, 20ERR-ER
R. Ogg, 20ERR-HW
W. Mugdan, 2 ORC-WTS
G. Gherardi, 20PM-FIN
W. Hedeman, WH-548
H. Crump, WH-548B
P. Flynn, PM-214-F (Express Mail)
M. Sadat, NJDEP